

Testimony of David Fluharty  
before the  
U.S. Senate Committee on Commerce, Science, and Transportation  
Subcommittee on Oceans and Fisheries  
Hearing on Implementation of the Sustainable Fisheries Act of 1996  
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Thank you for the opportunity to testify on the implementation of the Sustainable Fisheries Act (SFA) amendments to the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). I am David Fluharty, Research Associate Professor, School of Marine Affairs, University of Washington and a member of the North Pacific Fishery Management Council from Washington State. I speak in my personal capacity as an analyst (1) and participant in fisheries management, however, in preparation of this testimony, I have consulted with others (2), especially with respect to implementation issues before the Pacific Fishery Management Council. I had the privilege to Chair the National Marine Fisheries Service (NMFS) Ecosystem Principles Advisory Panel requested under the SFA (Section 406 MSFCMA). Our report entitled, "Ecosystem-Based Fishery Management" (3) was delivered to Congress in March 1999. I presently serve on the National Research Council, Ocean Studies Board, Committee on the Evaluation, Design and Monitoring of Marine Reserves and Protected Areas in the United States.

General Context for SFA Implementation Issues

The Sustainable Fisheries Act amendments to the Magnuson-Stevens Fishery Conservation and Management Act were major steps forward toward solving many of the problems in US fisheries management. Congress clarified and strengthened its directives to the NMFS and the Councils to end overfishing, rebuild stocks, reduce bycatch, protect fish habitat, reduce conflict of interest and establish user fees. Congress intended reform. Conservation came first and fishery management was intended to become more precautionary. I believe that fishery management institutions are responding

In the scant two and a half years since enactment, implementation of the SFA is happening at a pace limited by three factors:

First, is the limit of the capacity of a large fishery management institutional system to make rapid change in a democratic and open process. I believe that NMFS deserves a fair amount of credit for organizing itself for implementation. Within weeks after the passage of the SFA, Councils were given marching orders in letters from the Director, Rolland Schmitt and NOAA General Counsel. Not everything could be accomplished at once. Priorities were established and then reestablished as regulatory processes bogged down. Still, I would argue that as much of what Congress intended was implemented in a short time under the SFA as in 1976 when federal management for the 200 n.mi. zone was established. Much still remains to be done. Continued support and oversight by Congress is a necessary component of staying the course.

Second, is the limit of the available resources for management. Few tasks were removed from management responsibility by the SFA and enormous tasks were added. Congress did increase funding in later budgets, but, as with all legislative mandates, "Was the increase in budget and employees commensurate with the increase in tasks?" Besides the SFA, other federal fishery management responsibilities affected the implementation work loads of the Councils and NMFS in the Pacific West Coast. More species of salmon were listed as threatened or endangered under the Endangered Species Act (ESA). Similar ESA issues were raised with respect to Steller sea lions and the short-tailed albatross. The adequacy of the environmental impact assessment under the National Environmental Policy Act (NEPA) was challenged with respect to groundfish management. Finally, as members of this committee know, the passage of the American Fisheries Act (AFA) 1998, set in motion extensive reduction in fishing effort and rationalization of pollock fisheries in the North Pacific. Implementation of "sideboard" issues to prevent spillover effects into other fisheries has been a major focus of fishery management.

Third, is the limit of our understanding of the of fisheries and their interrelationships with ocean and coastal processes as well as other ecosystem components. This is to be distinguished from the failure to use the scientific knowledge and common sense that we do have available. It is not an excuse for inaction, nor is it a defensible formula for regulatory choices.

Actions that are being taken now may not show results for some time. Like a large ship, turning to a new course is not instantaneous. But the course is set. And the Councils with which I am most familiar, the North Pacific and Pacific Fishery Management Councils, have gotten the message. Much has been accomplished to implement the SFA and this is turning fishery management toward a more sustainable pathway. This should not be forgotten as we continue to implement other parts of the SFA.

#### Specific Implementation Issues

In the interest of brevity, these issues are presented in a series of short paragraphs without extensive documentation. (4) I would be pleased to answer questions or supply additional documentation as needed. The order of presentation is a focus on the fisheries environment issues and then moving to socio-economic and allocation issues. I have sought to avoid making recommendations for resolving these issues as I understand the Committee's focus for this hearing is on implementation.

#### Essential Fish Habitat (EFH)

The SFA requires that Councils become much more serious about habitat issues than before. For managed stocks, i.e., those under a fishery management plan (FMP), Councils are to designate essential fish habitat considering all life stages and, through new consultation requirements, manage to reduce impacts from other ocean uses. In addition, Councils were required to consider the effects of fishing on habitat. This latter emphasis is a new focus and one for which Councils and NMFS have the least information and preparation to implement.

NMFS worked extremely hard and quickly to develop regulatory guidelines to implement EFH and to initiate teams at the regional levels to pull together and evaluate information. Some scientific issues were raised about the original guidelines and many of these were resolved. More serious challenges to the guidelines, in concept, came from other potentially affected parties in the mining, forestry, agriculture and water resources management arenas. This delayed the final regulations, but the job did get done. The two important conclusions that I believe came from this effort are: 1) despite, significant long term scientific study, we know remarkably little about distribution and utilization of habitat by life history stage of the managed species [and much less about non-managed species]; and 2) based on what we know, most of the waters and substrates within the 200 n.mi. Exclusive Economic Zone (EEZ) are essential habitats for some species at some life history stage. Some find fault with the definition of essential fish habitat by the Councils as being too encompassing, but I argue, the onus is on them to demonstrate their position given the language of the SFA. Habitat is important for fisheries management.

These results and the documents identifying EFH do several important things. They establish a baseline of knowledge from which to build. This should help to prioritize research. They show the necessity to gain a better understanding of time/space scales in fisheries in order to develop appropriate fishery management approaches that take these factors into account. They point out the iterative nature of the task, i.e., to continually develop and apply better understanding of fish and their habitats. Perhaps most important, is that expanded effort and expenditure of resources on better defining the habitat needs of fish is critical to avoid more serious management issues under the ESA and to avoid “surprises” in the management of fisheries.

Concern continues to exist over the EFH consultation requirements that the SFA advises for all fisheries and requires for anadromous species. To some these requirements are simply redundant to other regulatory processes (NEPA, Fish and Wildlife Coordination Act, ESA, etc.) where fishery management agencies have long held a commenting role. Others consider the requirements impractical and beyond the resources of fishery management if any but the most significant projects affecting habitat are brought forward for consultation. In fact, experience, so far, indicates that the Councils and NMFS in the NE Pacific region have not invoked the consultation provisions. NMFS has continued its normal role of commenting in other processes. It has assumed a major role regarding Section 7 consultations with respect to ESA processes for salmonids and the ESA trumps the EFH under such circumstances. Thus, the EFH consultative provisions do not appear to be another layer of bureaucracy. However, this could change if the implementation approach is challenged and that is the worry.

The aspect of implementation of the SFA provisions for EFH that is least complete is for Councils to identify and take actions concerning fishing effects on fish habitats. In the North Pacific and Pacific Council regions, very little study of benthic impacts of fishing has been done. Since passage of the SFA, efforts have increased but the task is almost overwhelming and the resources are undoubtedly inadequate for the task. This failure to take new, comprehensive actions under the SFA requirements, as is being urged in legal actions at present, should be seen in the context of efforts, [some before and after the SFA took effect] to reduce benthic impacts of fishing. In the North Pacific region, more than 15,000 sq. n. mi. in the Bering Sea are closed to bottom trawls to protect red king crab habitats, reduce crab bycatch and to reduce gear conflicts. In the SE Gulf of Alaska a much larger area is closed to bottom trawls. Numerous other fisheries gear closure areas exist. In addition, the requirement to use midwater trawls in the pollock fisheries lessens benthic impacts as well. This is not to argue that the Councils’ work is done but to remind that we are not starting from a blank slate. In the North Pacific region, work is underway to develop a systematic approach to identification of Habitat Areas of Particular Concern as expected under the EFH guidelines.

#### Ecosystem-based Fisheries

The National Marine Fisheries Service (NMFS) Ecosystem Principles Advisory Panel established under the SFA (Section 406 MSFCMA) reported to Congress as noted above. The NMFS is in the process of implementing the portions of the recommendations that can be done under existing authorities. The Report makes recommendations to Congress on how to build off of the work done under the SFA (especially EFH) using the concept of a Fishery Ecosystem Plan (FEP). Ecosystem-based fishery management is not a substitute for good fisheries management. The full implementation of the SFA is a prerequisite to the development of ecosystem-based fishery management.

#### Marine Reserves

As noted above, extensive areas have been designated in the North Pacific (4) to control impacts of fisheries on habitat, reduce bycatch and to minimize gear conflicts. The tool of designating marine reserves for fisheries has long been part of fishery management and it is likely that it will be used more in the future. NPFMC is developing a systematic way to evaluate areas for consideration. The PFMC has established a committee to advise it on how marine reserves can be used in fishery management. It

expects to initiate actions in the fall of 1999. The National Research Council, Ocean Studies Board, Committee on the Evaluation, Design and Monitoring of Marine Reserves and Protected Areas in the United States has met three times and is hard at work drafting its report [Draft expected by April/May 2000]. This study, sponsored by the NMFS and other agencies, should result in extensive information on use of marine reserves in fishery management and for other purposes. My impression of the West Coast fishery management institutions is that they are actively interested in how to use marine reserves in fishery management. They are keenly aware that such areas must be part of an integrated approach to fishery management. There is considerable concern over the frequently advanced view that large no-take reserves are a substitute for fishery management. Full implementation of the SFA measures will go a long way toward resolving the fishery management failures that critics can so easily point out. Marine fishery reserves should be employed for fishery management purposes where they are the most effective and reliable approach to achieving the goals and objectives defined. [There are, of course, other marine management goals and objectives that can be served by marine reserves].

### Overfishing

Probably the most fundamental shift in the SFA was the requirement that MSY not be exceeded for any reason. While this seems like it should be an obvious tenet of fisheries management, Councils and NMFS were permitted to exceed MSY for socio-economic and other reasons in the earlier versions of the MFCMA. The new overfishing definition had to be worked out and placed in regulations. This delayed somewhat, its application in TAC setting until 1999. The new definition clarifies that all sources of fisheries mortality (including bycatch, discards, and estimates of unobserved mortality) should be counted against the Total Allowable Catch calculated around MSY. Fishery science has long regarded MSY as a crude measure and one that is not necessarily conservative because of its focus on "maximum" yields as opposed to long term sustainable yields. The regulatory definition goes quite far to incorporate more modern fishery reference points than straight MSY but the question remains as to how conservative it is and how useful it is to apply universally.

In the NPFMC area, conservative TACs have been set since 1977 so the new definition continues existing practices. The one species that falls under the new overfished definition is a species of crab for which the directed fishery has been closed for several years. Some discussion exists that there may be a need to examine how appropriate MSY is for management of crab species where recruitment and survival appear quite sensitive to ocean regimes as well as fishing pressure. This is a technical issue that can be resolved by stock assessment biologists given sufficient flexibility in the interpretation of the law.

For the PMFC the biggest issue in this respect has been how to implement the overfishing definition on its multi-species rockfish fisheries (nearly 60 species previously managed as a species complex). The overfishing definition applies to species and not to species complexes. Thus, there has been a major effort to work out scientifically how to implement the regulations and the species-by-species approach has radically reduced the TACs and fishing patterns have been altered. One of the most difficult parts for implementation is the assessment of direct and estimation of non-direct mortalities where there is not an observer program to gather reliable data across the fleet. PMFC is desperately aware of this problem and is working with members of this Committee to resolve it. There are further complications in managing this fishery because of the difficulty of using trip limits to accomplish management objectives. This appears to result in high regulatory discards and possibly in high grading of catches.

### Rebuilding Plans

Implementation of rebuilding plans is necessarily downstream of determination if a fish stock is overfished. Thus, rebuilding plans on the West Coast are lagging behind the SFA mandated schedule in terms of implementation. Significant progress has been made and these plans will go into effect in the near future. SFA has set in motion the kinds of actions intended to reverse downward trends in some fish stocks. For some species, results cannot be expected to be seen within a ten year time period due to the long life spans and slow recruitment into the fisheries (e.g., rockfish). For species dependent on special

environmental conditions beyond the control of management, a similar problem exists with the specification that the plan causes recovery within ten year. The most important effect of this provision of the SFA is that it forces Councils and the NMFS to focus on rebuilding the stocks once overfished.

## Bycatch

With the addition of a new National Standard, SFA requires Councils and the NMFS to “minimize” bycatch to the extent practicable, and, with respect to the NPFMC, sets a requirement for successive reduction of bycatch annually over a period of four years. NPFMC probably has some of the best data on bycatch over the years because of its extensive observer program. These bycatch amounts have been counted against the TAC for a considerable period of time and relatively little biological impact is attributed to it by the Plan Development Teams and by the Scientific and Statistical Committee of the Council. Bycatch of prohibited species (mostly high value species caught in other fisheries like salmon, herring, halibut) is closely monitored and, in some cases, this has led to a closure of a fishery before the TAC of the target species was caught. Thus, there has been a responsible management of bycatch to avoid conservation and economic concerns in the NPFMC area. To the extent that “minimization” of bycatch imposes costs over and above the biological benefits, it becomes a punitive measure in the eyes of the fishing fleets. Reducing bycatch commensurate to biological, conservation and economic realities is seen as reasonable approach whereas minimization for the sake of minimization is not. It all boils down to the interpretation of “to the extent practicable”.

NPFMC has reduced its total bycatch by approximately 50% in on set of management actions taken just prior to the SFA amendments but implemented after the SFA. It required that all non-prohibited species of bycatch be retained and utilized under its Improved Retention/Improved Utilization amendments to the groundfish FMP for cod and pollock. Some objected to this being considered as bycatch reduction and instead, called it a sleight of hand because the same fish were caught but simply re-categorized as utilized. The difference was that they were no longer discarded. This points to the conflict among fishery management objectives that promote utilization and those that call for minimizing bycatch. A common sense approach is needed to ensure that where there is not a discernible biological or conservation impact, utilization would seem a more important objective than bycatch reduction. To further complicate matters, some insist that utilization of fish for purposes other than human consumption is inappropriate even if profitable. Again, a common sense clarification is necessary along with what is outlined above.

Further actions by the NPFMC have aimed at reducing bycatch but these have not been as dramatic in effect as the earlier measures. They have probably resulted in a reduction in bycatch in each of the subsequent years but it is difficult to track completely. This points to the need for flexible options for bycatch reductions, rather than a target schedule, as effective ways to reduce bycatch. In the same amendment that produced large reduction in bycatch in pollock and cod fisheries, NPFMC adopted the goal of IR/IU for yellowfin sole and rock sole in five years from date of approval to allow the industry to adapt gear and equipment to accommodate the acknowledged changes that would be necessary.

In the PPMC region bycatch amounts are less well known because of the lack of an observer program over the full range of fisheries. To be certain, some management measures like trip limits and regulatory discards from them, make implementation difficult. Problems with interceptions of ESA listed salmon runs and a general management concerns over other depleted stocks have led to greater efforts to restrict time and fishing areas to those with the least interceptions and/or highest degree of catch of hatchery fish. This has had major impacts on all salmon fisheries but especially on coastal charter fisheries and commercial troll fisheries.

I am convinced that a necessary component of bycatch reduction measures is bycatch allocation and monitoring at the vessel level. NPFMC efforts from its Vessel Incentive Program (VIP) demonstrate this. Effective use of such measure at the vessel level is complicated by due process limitations and by concerns that such allocations represent individual quotas not allowed under the SFA moratorium on IFQs.

## Reducing Overcapacity

The SFA and concomitant measures under ESA for salmon have resulted in some buyback programs for fisheries in economic crisis in the PFMC region. Obviously, the long term goal is to have healthy fisheries and fishing industries. The SFA measures discussed above are setting the stage for that scenario.

One of the keys to successful implementation of fisheries management measures is providing the right kinds of incentives to fishermen to do what is needed. When the fishing industry can see the justification for and reap the benefits of management measures, they can more readily accept additional costs to achieve them. If the benefits are not spread too thinly, fishing interests are much more likely to be able to afford the sometimes costly measures required to achieve management goals. On the West Coast, fishery managers and fishing interests are eager to embrace a variety of programs that would reduce the amount of fishing capacity. In this regard, the SFA provides for the use of industry funded buyback programs. However, the federal regulations for this approach are yet not approved, despite pleas from some segments of the fishing industry and interventions by some members of this Committee. This delay in developing regulations has impeded industry actions to develop such programs.

The SFA moratorium on IFQ programs has set back Council development of IFQ plans in several cases on the West Coast. Because of its concerns about the use of IFQ programs, Congress requested that the National Research Council report on use of IFQs in fisheries management. That report was released earlier this year. It finds that IFQs and similar measures should be in the fishery management toolbox for use where they are determined to be appropriate at the regional level, and where they are properly conditioned to avoid mistakes and unintended consequences of some previous efforts. This sparks interest in reviving in that mechanism.

Since passage of the SFA, fishery management Councils have continued efforts to limit access to the fisheries through moratoria on new entry and through license limitation programs. While these measures are important in and of themselves, they do not address the underlying issue of too much active and latent capacity in the fishing fleet. For some fisheries, like Bristol Bay red king crab, the race for fish under very hazardous conditions cannot be solved by license limitation alone. Management problems, too, are considerable in such a short duration, high intensity fishery. It is my impression that market-based choices by fishing entities to exit or remain in a fishery relieve the Councils of this onerous task and are more likely to be viewed as fair than any formula that might be designed by a Council process. These choices are served by a variety of effort limitation mechanisms, including industry funded buyback programs, IFQs, etc.

Since the passage of the SFA, one of the most innovative developments in capacity reduction is the formation of a Pacific whiting fishing cooperative that significantly reduces the number of vessels competing for a specific allocation of the Pacific whiting catch in the Pacific region. In 1998, a similar cooperative approach was enabled through passage of the American Fisheries Act (AFA) with leadership by members of the this Committee. Already pollock fisheries cooperatives have formed among the at-sea processors and the catcher vessels delivering fish to them. Similar efforts are underway for catcher vessels delivering to onshore processors as one of the alternatives allowed by the AFA. The cooperative approach is being observed favorably by other fishing sectors and it is likely that other efforts will be made to form them. The benefits of increased recovery rates, reduced bycatch and increased ability to produce high value products, as opposed to high volume products, appear to be realized. The environmental costs of operating redundant fishing capacity, the ending of the "Olympic-style" competitive race for fish, the losses to net economic benefits, and the social benefits of more stable fishing opportunities at increased returns all point in the right direction from the cooperative approach.

## National Standard for Safety

Two new national standards were promulgated under the SFA -- for bycatch (discussed above) and for fishing safety. With respect to the national standard for fishing safety, it does not appear that significant

changes are being made to implement it in FMPs. The willingness of fishing entities to take risks seems highly correlated with the economic incentives to race for fish in high value, low volume, short duration fisheries. Management measures that allow more flexibility in choices of when and how to fish without competing for a share of the fish, seem most favored by the participants in such fisheries. Market-based and cooperative mechanisms are likely to develop the innovations to vastly improve decision-making with respect to risk. In addition, fishing operations that are profitable are able to maintain vessel systems and retain qualified crew members – all of which contribute to but do not guarantee safety of fishing.

#### National Standard Definition of Fishing Communities and Socio-Economic Information

One of the realizations of efforts to implement the fishing community definition was that socio-economic data gathered by states are woefully inadequate for fishery council deliberations. Almost no socio-economic data are collected on fishing entities (despite willingness of industry to provide them) that are sufficient for management decisions. This means that even qualitative judgments are hard to make. Implementation of a scientifically sound policy with respect to fishing communities requires a significant new effort to obtain them on a routine basis and this implies a need for budgetary support.

#### Other Issues

Two issues of particular concern for West Coast fisheries are the development of an observer program and the continuation state management authority for dungeness crab in federal waters off Washington. Whether the observer program is based on fees collected from the fleet or general appropriation is a matter to be decided, as well. Without an observer program it is nearly impossible to make measurable progress toward bycatch reduction or the monitoring of discards or high-grading. The ability of the state to continue to manage dungeness crab in federal waters is particularly important given its co-management agreements with Native American tribes under Treaty obligations. This option has been implemented quite successfully under the SFA and makes the management approach inside state waters and in federal waters a more coherent and consistent one.

In the SFA, there were a variety of other reports on such things as lien registries for fishing vessels and reduction of subsidies in fishery management. Based on anecdotal reports these studies are progressing but not yet complete. These reports are needed links in developing more innovative and sustainable fisheries under the SFA.

#### Notes:

1. See, for example, Fluharty, David. 1996. "Magnuson Fishery Conservation and Management Act Reauthorization and Fishery Management Needs in the North Pacific Region." *Tulane Environmental Law Journal*. Vol. 9:2 Summer 1996. Pp.301-328.
2. Preparation of this statement included discussions with a number of people in the "Council families" of the North Pacific Fishery Management Council and the Pacific Fishery Management Council. NPFMC: Rick Lauber, Chairman; Clarence Pautzke, Executive Director; Dennis Austin, Council Member Washington Department of Fisheries and Wildlife (WDFW); Wally Pereyra, Council Member; Arni Thomsen, Alaska Crab Coalition; Paul MacGregor, Jim Gilmore, Trevor McCabe, At-Sea Processors Association; Tom Casey, Alaska Fisheries Conservation Group. PMFC: Larry Six, Executive Director; Phil Anderson, Council Member WDFW; Bob Alverson, North Pacific Vessel Owners Association and Council Member; Rob Zuanich, Purse Seine Vessel Owners Association. The press of time did not allow for contact with processors, tribes, and many other interests.
3. <http://www.nmfs.gov.sfa/reports.html>
4. This presentation is coordinated with that of Rick Lauber, Chairman, NPFMC in order to avoid repetition. Materials supporting his presentation are incorporated by referenced herein as well.